

PSYCHE.

THE MELANOPLI OF KANSAS.—I.

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The discussions which follow refer to species taken in the State during the field work of the past two seasons. It has not been the endeavor to ascertain, at this time, the number of species existing within the State. The study has been conducted more especially with reference to the subject of variation. Later it is probable that the work may take the form of a survey of the group. The greater part of the material studied has been taken along the Arkansas river south of Offerlie in Ford county by Hunter, in Hamilton county three miles east of Syracuse by Hunter, and in Russell county about three miles northwest of Russell, by Sutton. The order followed in this group is that of Scudder in his Revision of the Melanopli.*

HESPEROTETTIX.

H. pratensis Scudder. — Tegmina of four of the six specimens exceed the abdomen in length. In two of these cases one male and one female by 3.5 and 3 mm. respectively. Scudder says "tegmina about length of abdomen in both sexes." In his key, however, he says tegmina distinctly surpass the abdomen (in the male) or equal it (in

the female) Male cerci straight, not "feebly down-curved."

Quite rare, taken only in buffalo grass pastures. A species much sought after by both parties while collecting, and taken, as the field notes show, only on cloudy days after rain. At these times it was very active. Is it possible that its alertness under favorable conditions, warmth and sunshine, keep it beyond the range of the collector? Only three females and two males (Ford county) and one male (Russell county) were taken. The beautiful white dashes upon the lateral aspect of the thorax fade out entirely in the dried specimens. As far as our knowledge extends, now first reported from Kansas.

H. speciosus Scudder. — All specimens have median carina of pronotum "pink roseate," some conspicuously so. Humeral angle of hind margin of metazona hardly apparent. In the three males before us the subapical tubercles are transverse, and one distinctly though not deeply bifid. Scudder says this bifurcation occasionally happens in drying. In this case shrivelling is not apparent; it appears to be a natural structure. Lower half of labrum and space between vertical carinae of upper half, piceous. Coloration here not given by Scudder. Several nymphs of

* Rev. Orthopt. group Melanopli (Acridiidae) with special ref. to N. A. forms. Proc. U. S. Nat. Mus. Vol. XX. pp. 1-421, Pl. 1-xxvi.

the last ecdysis were taken. These closely resembled the adult in form and ground color, but differed in having no red or roseate markings whatever. Labrum marked as in adult, but antennae green instead of pink; and each segment margined with piceous.

This species feeds largely upon lamb's-quarter, *Chenopodium album*, and furnishes an interesting example of protective coloration, in that green and roseate markings of plant and insect are almost identical. The insect, therefore, is not readily perceived at rest upon this weed.

Two males, three females (Ford county) one male, two females (Hamilton county) one female (Russell county).

ÆOLOPLUS.

A. regalis Dodge.—The variation among the specimens before us is very slight, being limited to shades of coloration, and the markings of hind femora.

They conform with Scudder's description. The range of coloration was noticeable, the green varying from light to dark green. One exceedingly light colored female had doubtless been taken soon after last moult. The ground color varies from testaceous to greenish yellow.

Of the femur Scudder says "testaceous yellow with two broad angulate and sagittate bands darkest above;" our specimens present these features and in addition a basal spot which sometimes takes the form of a third oblique stripe. In some these angular bands fuse so as to cover almost the entire surface of the femur. The pallid base of hind tibiae mentioned by Scudder takes in our specimens the form of a clearly defined annulus.

Fourteen males, four females (Ford county) one female (Russell county). July; common both in pastures and cultivated crops, a rather late species being most abundant in August.

AMERICAN FOSSIL COLEOPTERA REFERRED TO THE SCOLYTIDAE.

BY A. D. HOPKINS, MORGANTOWN, W. VA.*

I have been greatly interested in studying the tertiary Scolytids and the work of a prehistoric beetle in wood from interglacial clays,† which you so kindly intrusted to me for that purpose.

* In a communication to S. H. Scudder.

† The results of the examination of the fossil Scolytid borings will be published elsewhere.—S. H. S.

At best the Scolytidae are a troublesome lot to study, even with a large series of perfect specimens, and it is often quite difficult satisfactorily to refer the species to their natural position.

Therefore when we come to deal with partially preserved remains and impressions of forms which were buried in the mud of tertiary lakes, it